

JUL 28 2006

K060906

**5.0 510(K) SUMMARY OF SAFETY & EFFECTIVENESS**

This 510(k) Summary of Safety and Effectiveness is provided in accordance with 21 CFR 807.92.

Date of preparation: March 31, 2006

Submitter information:

Calypso® Medical Technologies, Inc.  
2101 Fourth Avenue, Suite 1550  
Seattle, WA 98121

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Contact: Sue Ridge  
Regulatory Affairs/Quality Systems Manager

Device trade name: Calypso® 4D Localization System

Common name: Patient localization system

Classification name: Accelerator, Linear, Medical

Classification: CFR 892.5050  
Class II  
Product code – IYE

Predicate devices: BrainLAB ExacTrac Patient Positioning System  
(K983660, K003285, K040585)

GE Medical Systems Instatrak System  
(K960330, K983529, and K994270)

Northwest Medical Physics Equipment (NMPE) Acculoc  
implanted fiducials (K012575)

1060906

Indications for use:

The Calypso® 4D Localization System is intended for use as an adjunct in treatment planning and radiation therapy, to align and monitor the patient's position relative to the isocenter of a linear accelerator. The Calypso System provides accurate, precise, and continuous localization of a treatment isocenter by using two or more Beacon® transponders.

Beacon transponders are indicated for permanent implantation in the prostate only.

Device description:

The Calypso 4D Localization System (Calypso System) is designed to provide accurate, objective, and continuous localization of a treatment target for patient alignment and target position monitoring during radiation therapy. Use of the Calypso System for target localization is based on the system's detection of electromagnetic signals from passive implanted markers, called Beacon transponders. The Beacon transponders are implanted in or near the treatment target. When used with the Calypso System, the Beacon transponder signals enable objective measurement of the location of the treatment target in 3 dimensions. The system operator uses this information to align the patient's treatment target to the isocenter of the linear accelerator prior to radiation therapy and to monitor the position of the treatment target during treatment.

Performance testing:

The Calypso System and Beacon transponders have been the subject of performance testing, including design verification and validation, packaging, sterility, electromagnetic compatibility as well as other assessments to demonstrate that the system meets its intended use, is safe and effective, and performs comparably to legally marketed devices. Other types of testing, such as biocompatibility and software verification and validation, also were performed.

Summary of Clinical and Nonclinical Testing:

Clinical and nonclinical testing demonstrates that the Calypso System is safe and effective, and performs comparably to legally marketed devices. The system was used successfully to localize patients during set-up and alignment and to track prostate motion during therapy delivery in a subset of the patients. Results show that the Calypso System can accurately and reliably provide localization and tracking information throughout all treatment fractions.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Food and Drug Administration  
9200 Corporate Blvd.  
Rockville MD 20850

JUL 28 2006

Mr. Eric Meier  
President and Chief Executive Officer  
Calypso Medical Technologies, Inc.  
2101 Fourth Avenue, Suite 1550  
SEATTLE WA 98121

Re: K060906  
Trade/Device Name: Calypso 4D Localization System  
Regulation Number: 21 CFR 892.5050  
Regulation Name: Medical charged-particle radiation therapy system  
Regulatory Class: II  
Product Code: IYE  
Dated: June 22, 2006  
Received: June 26, 2006

Dear Mr. Meier:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.



*Protecting and Promoting Public Health*

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.


This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at one of the following numbers, based on the regulation number at the top of this letter:

21 CFR 876.xxx	(Gastroenterology/Renal/Urology	240-276-0115
21 CFR 884.xxx	(Obstetrics/Gynecology)	240-276-0115
21 CFR 894.xxx	(Radiology)	240-276-0120
Other		240-276-0100

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (240) 276-3150 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,



Nancy C. Brogdon  
Director, Division of Reproductive,  
Abdominal, and Radiological Devices  
Office of Device Evaluation  
Center for Devices and Radiological Health

Enclosure

#### 4.0 INDICATIONS FOR USE STATEMENT

510(k) Number (if known): K060906

Device Name: Calypso 4D Localization System

##### *Indication for Use:*

The Calypso® 4D Localization System is intended for use as an adjunct in treatment planning and radiation therapy, to align and monitor the patient's position relative to the isocenter of a linear accelerator. The Calypso System provides accurate, precise, and continuous localization of a treatment isocenter by using two or more Beacon® transponders.

Beacon transponders are indicated for permanent implantation in the prostate only.

Prescription Use X  
(Part 21 CFR 801 Subpart D)

AND/OR

Over-the-counter Use \_\_\_\_\_  
(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE OF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Nancy Brogdon  
(Division Sign-Off)  
Division of Reproductive, Abdominal,  
and Radiological Devices  
510(k) Number K060906